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LANDSLIDES IN THE HIGHWAY 1 CORRIDOR BETWEEN BODEGA BAY AND FORT ROSS, SONOMA COUNTY, CALIFORNIA

by

M.W. Manson, C.M. Huyette, C.J. Wills, M.E. Huffman, M.G. Smelser, M.E. Fuller,
C. Domrose and C. Gutierrez

Highway 1, the main transportation corridor along the coast in northern California, traverses a particularly rugged and landslide-prone area between Bodega Bay and Fort Ross in Sonoma County. Within this corridor, landslides on the high steep slopes between Russian Gulch and Fort Ross have been an ongoing problem for decades. Movements in the 1990's necessitated construction of several large structures to attempt to stabilize landslides. In order to evaluate the relative hazards of the landslides along the highway on the high bluffs compared with other landslides in the area, Caltrans contracted with the California Geological Survey to map the geology and landslides of the corridor. This mapping will help Caltrans plan landslide mitigation along the existing roadway and evaluate potential means of avoiding the most severe hazards.

Two sets of maps have been prepared for this corridor, a landslide inventory map and a geologic map. The maps were prepared at a scale of 1:12,000 by compilation of previous geologic mapping, interpretation of aerial photographs and original field mapping along the highway. These maps were prepared using a computer geographic information system (GIS) on scanned images of USGS 7.5-minute topographic quadrangles. Portions of the Arched Rock, Bodega Bay, Duncans Mills, Fort Ross and Plantation quadrangles form the base maps. Report and maps are in PDF format.

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Gary Taylor
Senior Engineering Geologist

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